



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**28.05.2003 Bulletin 2003/22**

(51) Int Cl.7: **G06F 1/00**

(21) Application number: **01127906.4**

(22) Date of filing: **23.11.2001**

(84) Designated Contracting States:  
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU**  
**MC NL PT SE TR**  
 Designated Extension States:  
**AL LT LV MK RO SI**

(72) Inventor: **Mattsson, Ulf**  
**Stamford, CT 06905 (US)**

(74) Representative: **Lind, Urban**  
**Awapatent AB,**  
**P.O. Box 11394**  
**404 28 Göteborg (SE)**

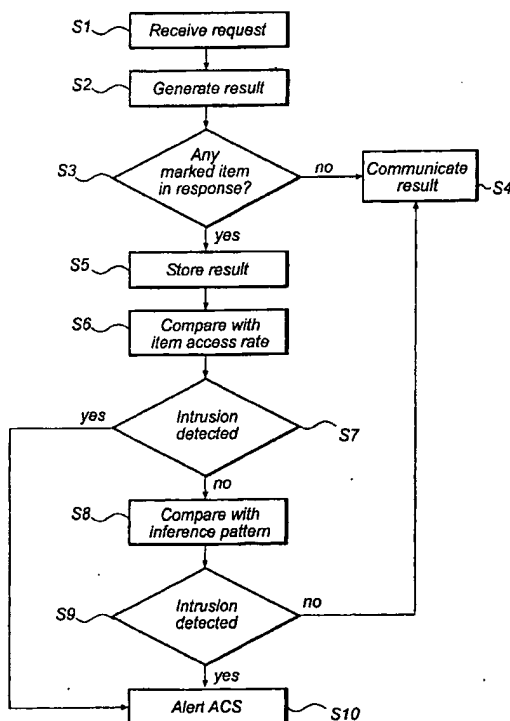
(71) Applicant: **Protegrity Research & Development**  
**931 78 Skelleftea (SE)**

(54) **Method for intrusion detection in a database system**

(57) A method for detecting intrusion in a database, managed by an access control system, comprising defining at least one intrusion detection profile, each comprising at least one item access rate and associating each user with one of said profiles. Further, the method determines whether a result of a query exceeds any one of the item access rates defined in the profile associated with the user, and, in that case, notifies the access con-

trol system to alter the user authorization, thereby making the received request an unauthorized request, before said result is transmitted to the user.

The method allows for a real time prevention of intrusion by letting the intrusion detection process interact directly with the access control system, and change the user authority dynamically as a result of the detected intrusion.



**Fig. 2**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 01 12 7906

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	DENNING D E: "AN INTRUSION-DETECTION MODEL" IEEE TRANSACTIONS ON SOFTWARE ENGINEERING, IEEE INC. NEW YORK, US, vol. SE-13, no. 2, 1 February 1987 (1987-02-01), pages 222-232, XP000039382 ISSN: 0098-5589 the whole document	1,2,7,9	G06F1/00
A	BHATTACHARYYA R K: "SECURITY OF NETWORK ELEMENT DATABASES AGAINST INCREASING THREATS OF INTRUSION VIA OPERATIONS INTERFACES" PROCEEDINGS OF THE INTERNATIONAL CARNAHAN CONFERENCE ON SECURITY TECHNOLOGY: CRIME COUNTERMEASURES. VENUE NOT SHOWN, OCT. 5 - 7, 1988, NEW YORK, IEEE, US, 5 October 1988 (1988-10-05), pages 51-64, XP000252711 * page 51, left-hand column, line 1 - page 53, left-hand column, line 16 * * page 55, right-hand column, line 17 - page 56, left-hand column, line 34 * * page 59, left-hand column, line 8 - page 62, right-hand column, line 3 *	1	TECHNICAL FIELDS SEARCHED (Int.Cl.7)  G07F G06F
A	EP 0 999 490 A (FUJITSU LTD) 10 May 2000 (2000-05-10) * abstract *	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 24 April 2002	Examiner Arbutina, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons  & : member of the same patent family, corresponding document	

EPO FORM 1503 (03.02.2004)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 12 7906

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-04-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0999490 A	10-05-2000	JP 2000148276 A EP 0999490 A2	26-05-2000 10-05-2000

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82